F·A·A·M facility for airborne atmospheric measurements

FLIGHT FOLDER

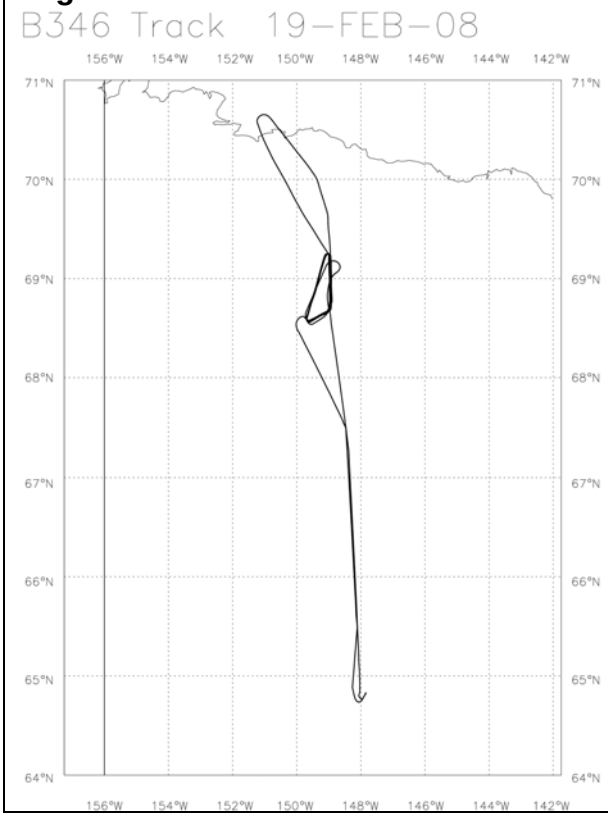
Flight No.	B346
Date:	19 February 2008
Take Off:	17:24:15Z
Landing:	22:23:59Z
Flight Time	4h 59m 44

Campaign: CLPX II

Operating Area: Brooks Range and North Slope Ground Sites, Alaska

POB	Position	Name	Institute
1	Captain	Alan Foster	Directflight
2	Co-pilot	Luc Lathouwers	Directflight
3	CCM1	Gaynor Ottoway	Directflight
4	Mission Scientist 1	Chawn Harlow	Met Office
5	Flight Manager	Mo Smith	FAAM
6	Core Chem / AVAPS /CCM2	Doug Anderson	FAAM
7	Cloud Physics	Jim Crawford	FAAM
8	SWS	Ian Rule	Met Office
9	CVI / Nephelometers	Rob King	Met Office
10	DEIMOS	Dave Pollard	Met Office
11	ARIES	Joss Kent	Met Office
12	Mission Scientist 2	Jonathan Taylor	Met Office

Flight Track:

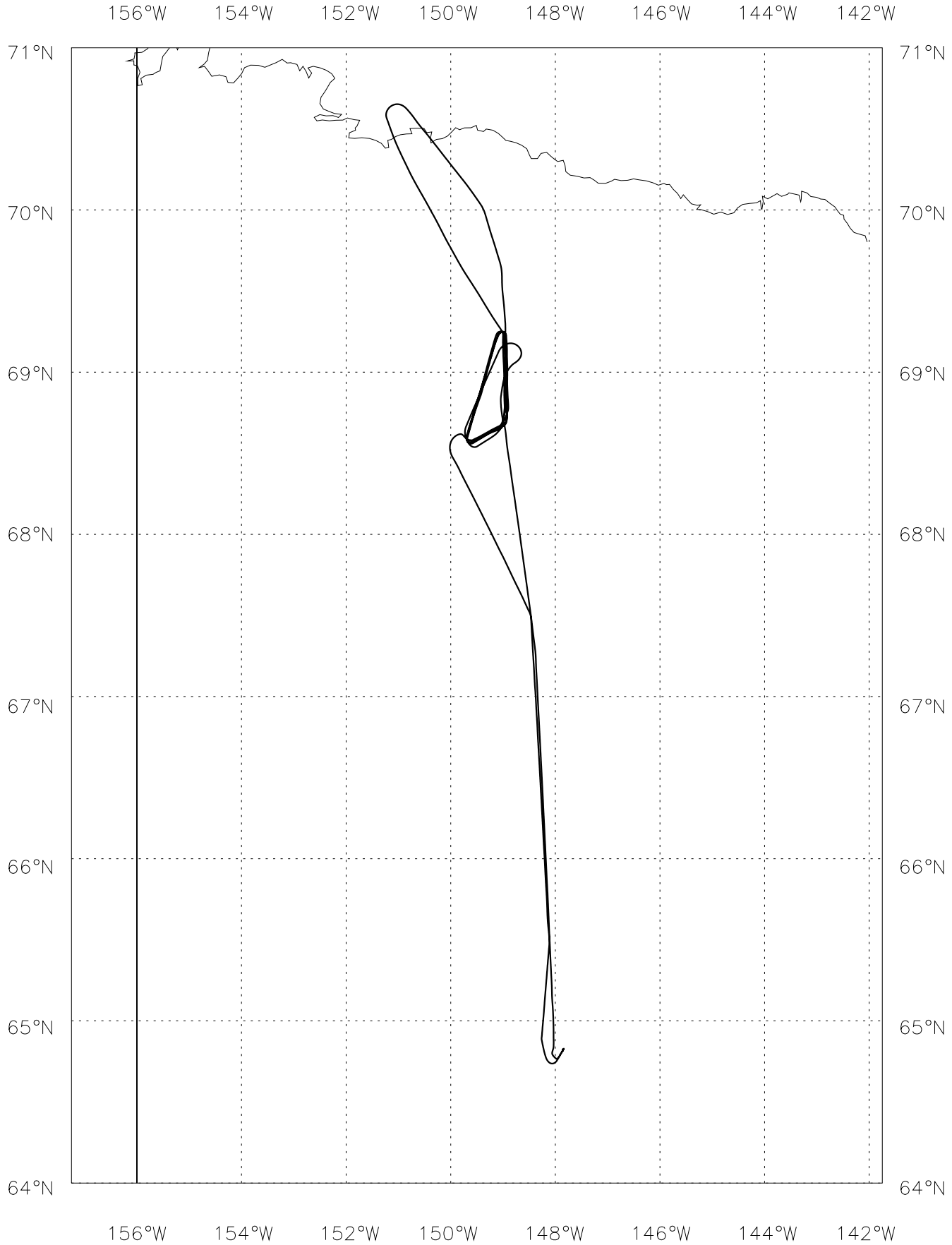


FLIGHT SUMMARY

Flight No B346
Date: 19 February 2008
Project: CLPX II
Location: Barrow Range and North Slope, Alaska

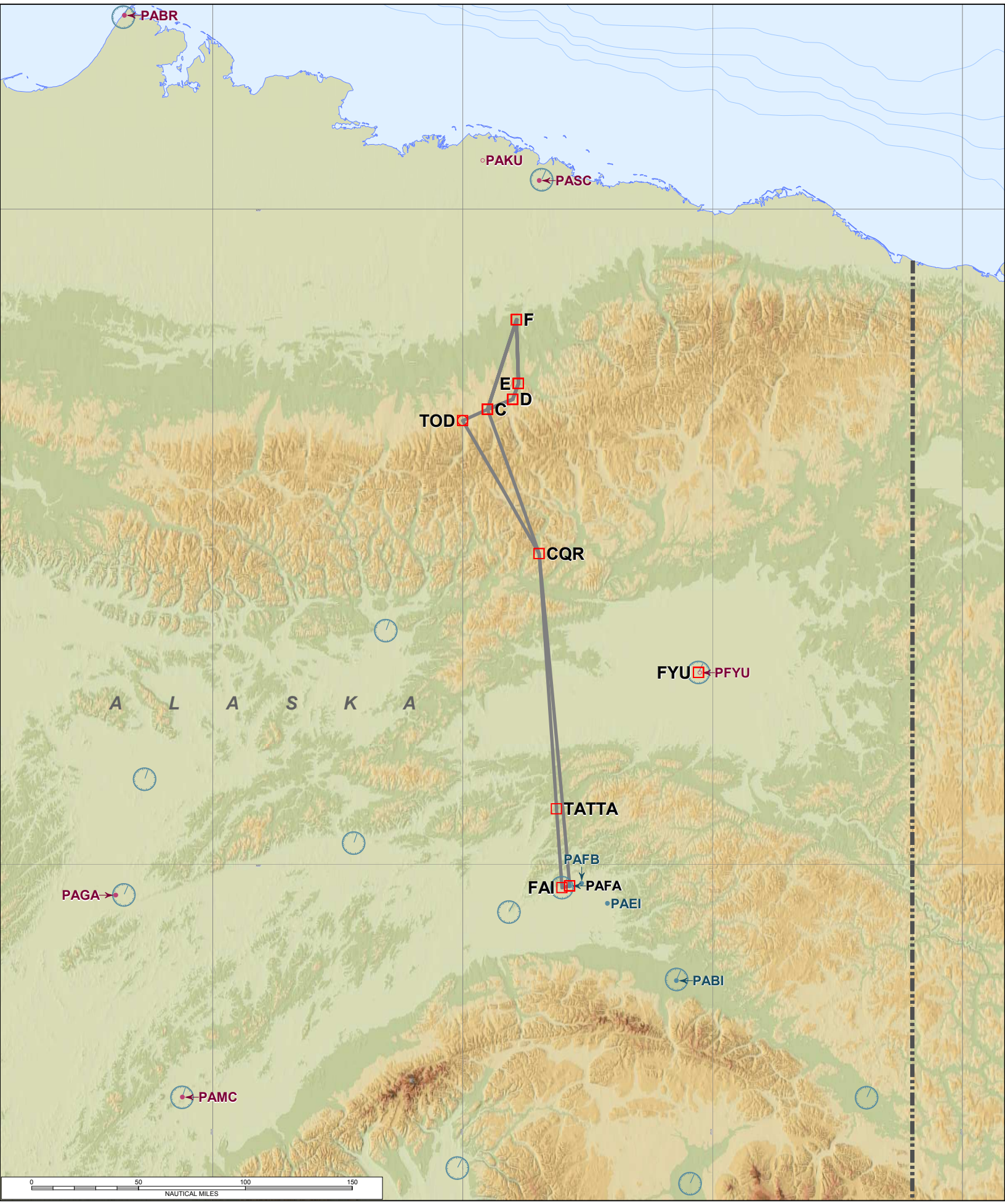
Start Time	End Time	Event	Height (s)	Hdg	Comments
164700		Start-Up	0.89 kft	318	64 49.58N, 147,50.98W
165941		Pan Posn	0.89 kft	216	64'49.60N, 147'50.98W
170709		ASP	0.89 kft	216	Open
172152		Video	0.90 kft	050	Start FFC & DFC1
172415		T/O	1.6 kft	213	Fairbanks
180318	180903	Profile 1	16.3 - 10.4 kft	323	16k-10k', QNH 29.58"
181238	181735	Profile 1	10.3 - 5.9 kft	328	10k-5.6k',Q29.57
181535		Event	7.7 kft	352	Gentle Turn
181549		Video	7.4 kft	002	Switch FFC to UFC
181953	182257	Run 1	5.9 kft	073	C2-D2, 5.6k'
182313	182507	Profile 2	5.9 - 4.4 kft	064	Turning
182507	183246	Run 2	4.4 - 4.3 kft	009	E2-F2, 4k'
183602		Event	4.4 kft	199	Heimann Cal
184029		Event	4.4 kft	196	Zero JW & Nevz
184658	185010	Run 3	4.1 - 3.8 kft	065	C2-D2, 3.6k'
185131		Video	3.2 kft	006	Start UFC & DFC2
185207	185957	Run 4	2.9 - 2.4 kft	002	E2-F2, 2.1k'
190745		Event	5.3 kft	197	Heimann Cal
191152		Ground Site	5.3 kft	197	68,39',48.9"N, 149,8',45.3"W
191417	191715	Run 5	4.4 - 3.9 kft	063	C1-D1, 3.7k'
192008	192735	Run 6	3.1 - 3.0 kft	359	E1-F1, 2.8k'
192800		Video	3.2 kft	312	Switch UFC to FFC
193006		Event	5.4 kft	201	Heimann Cal
194143	194444	Run 7	4.3 - 3.8 kft	067	C3-D3, 3.6k'
194706	195437	Run 8	3.1 - 2.3 kft	000	E3-F3, 2k'
195808		Event	5.3 kft	198	Heimann Cal
200902	201154	Run 9	4.2 - 3.9 kft	060	C-D,3.7K'
201421	202206	Run 10	3.0 - 2.2 kft	009	H-G, 2k'
202228	204425	Profile 3	2.2 - 23.9 kft	339	
203105		Video	10.3 kft	323	Start FFC & DFC3
204629	210549	Profile 3	24.0 - 35.0 kft	144	To F
205301		Event	29.9 kft	157	Contrailing
210557	211149	Run 11	35.0 kft	189	F2-E2
210634		Sonde	35.0 kft	189	Launch #01
210937		Sonde	35.0 kft	189	Launch #02
211309	211557	Run 11.2	35.1 - 35.0 kft	227	D2-C2
211316		Sonde	35.1 kft	227	Launch #03
211600		Event	35.1 kft		Satellite overpass
212605	212927	Run 11.3	35.0 kft	230	Not F2-E2!!!
212631		Sonde	35.1 kft	221	Launch #04
212903		Sonde	35.0 kft	188	Launch #05
220416		Video	29.0 kft	179	End of Tapes
221523		ASP	9.3 kft	170	Closed
222359		Land	1.1 kft	336	Fairbanks
223004		Shutdown	1.1 kft	311	64'49.58N,147'50.98W

B346 Track 19-FEB-08



Pilot: Alan Foster
NavData Cycle 2008-2 Expires: Thursday, 13 March 2008.
Scale: 1:4023351 (1 inch = 55.18 naut mi). Printed on 19 Feb 2008

JEPPESEN
FliteStar 9.3.0.0



FAAM Sortie Brief

Project: CLPX-II.

Sortie 1: Ground transect overflight with sonde dropping.

Flight Number: B346 **Date: 19/02/2008**

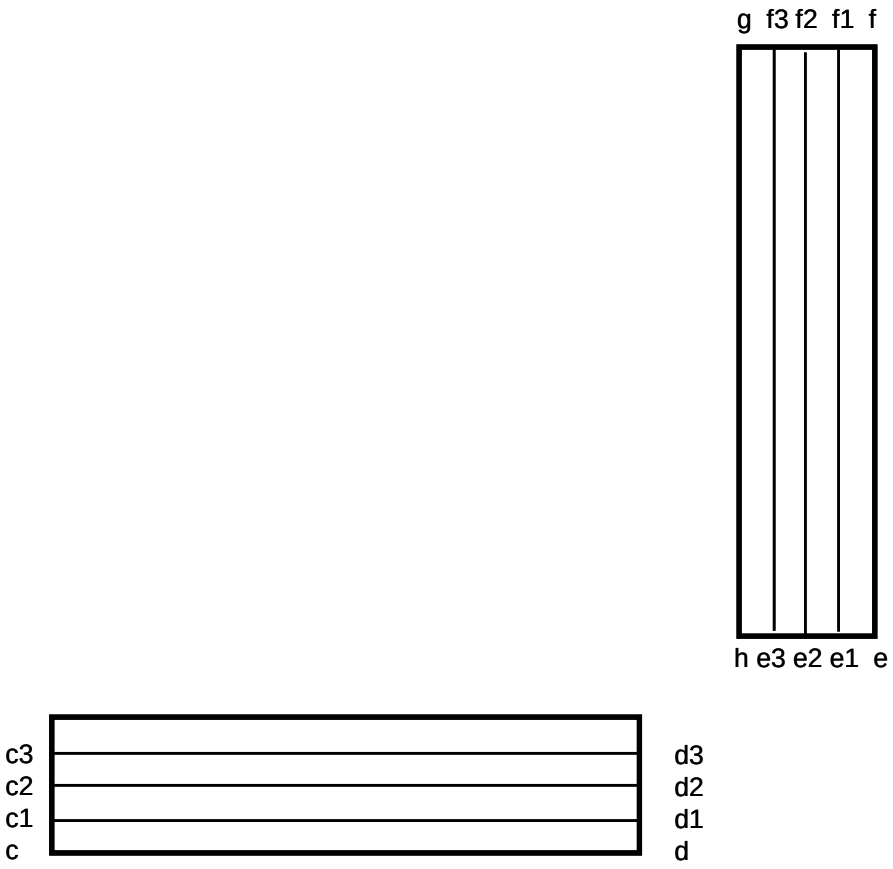
Scientific objectives: To measure emissivities along the ground transects where snow hydrologists are making detailed measurements of snow properties. The sonde dropping run is for establishing the atmospheric temperature and humidity profiles and the variance of such profiles to assist in modeling of the atmospheric radiative transfer.

Location: Over the Brooks Range and North Slope of Alaska.

Weather conditions: Hopefully cloud free. Much of the decision to fly from a science perspective will come from the ground crew participation.

Flight Pattern: The flight will consist of the overpass of two ground sites as straight and level runs (SLRs) at low level and high level. Sondes will be dropped during the high level runs. The ends of the runs are given by fixed way points.

Point	Latitude	Longitude
C	68 34.92	149 29.968
D	68 39.367	148 59.92
C1	68 34.683	149 29.3
D1	68 39.667	148 59.267
C2	68 35.117	149 29.817
D2	68 40.083	148 59.917
C3	68 35.533	149 30.333
D3	68 40.667	149 00.367
E	68 46.263	148 53.007
F	69 13.691	148 55.378
E1	68 46.09	148 54.349
F1	69 13.191	148 56.119
E2	68 46.114	148 55.529
F2	69 13.191	148 57.365
E3	68 46.138	148 56.709
F3	69 13.191	148 58.546
H	68 46.206	148 58.053
G	69 13.632	149 00.531



Sortie detail:

1. T+0. (0830L) Take off and transit to operating area. Profile during transit to 2000’ agl arriving at point C2. (45 min)
2. T+45. (0915L) Carry out SLR at 2000’ agl from C2 to D2. (4 min)
3. T+49. (0919L) Reposition to point E2. (3 min)
4. T+52. (0922L) Carry out SLR at 2000’ agl from E2 to F2. (8 min)
5. T+60. (0930L) Reposition to point C2 arriving at minimum safety altitude (MSA). (15 min)
6. T+75. (0945L) Carry out SLR at MSA from C2 to D2. (4 min)
7. T+79. (0949L) Reposition to point E2. (3 min)
8. T+82. (0952L) Carry out SLR at MSA from E2 to F2. (8 min)
9. T+90. (1000L) Reposition to point C1 arriving at MSA. (15 min)
10. T+105. (1015L) Carry out SLR at MSA from C1 to D1. (4 min)
11. T+109. (1019L) Reposition to point E1. (3 min)
12. T+112. (1022L) Carry out SLR at MSA from E1 to F1. (8 min)
13. T+120. (1030L) Reposition to point C3. (15 min)
14. T+135. (1045L) Carry out SLR at MSA from C3 to D3. (4 min)
15. T+139. (1049L) Reposition to point E3. (3 min)
16. T+142. (1052L) Carry out SLR at MSA from E3 to F3. (8 min)
17. T+150. (1100L) Reposition to point C. (15 min)

18. T+165. (1115L) Carry out SLR at MSA from C to D. (4 min)
19. T+169. (1119L) Reposition to point H. (3 min)
20. T+172. (1122L) Carry out SLR at MSA from H to G. (8 min)
21. T+180. (1130L) Profile up to Max Altitude arriving at point F2. (35 min)
22. T+215. (1205L) Carry out SLR from F2 to E2 at max alt. dropping two sondes (0, 3 min timings)(6 min)
23. T+221. (1211L) Reposition to point D2. (2 min)
24. T+223. (1213L) Carry out SLR from D2 to C2 at max alt. dropping one sondes (0 min timing)(3 min)
25. T+226. (1216L) Reposition to point F2. (10 min)
26. T+236. (1226L) Carry out SLR from F2 to E2 at max alt. dropping one sondes (0 min timings)(6 min)
27. T+242. (1232L) Reposition to point D2. (2 min)
28. T+244. (1234L) Carry out SLR from D2 to C2 at max alt. dropping one sondes (0 min timings)(3 min)
29. T+247. (1237L) Transit back to Fairbanks (60 min)
30. T+307. (1337L) Land.

B346 – Sortie Debrief

Mission Scientist: Chawn Harlow 19/02/08

Campaign: CLPX-II

The objective of this sortie was to measure the emissivity of the snow covered land in the sites where snow hydrologists were monitoring snow physical parameters. This requires skies that are relatively cloud free. The key instruments are MARSS and Deimos, ARIES, the Heimann, the radar altimeter and the drop sondes.

After transit to the operating area, conditions were found to be ideal with clear skies throughout the low level runs. Ten straight and level runs (SLRs) were carried out over the field sites in the pattern outlined in the sortie brief. These were at altitudes between 2000’ and 5600’ ASL. The aircraft then profiled up to FL350 where a sonde dropping run was commensed. During this high level run thin Ci was found to be invading from the south. It is thought that the cirrus will not impact the emissivity retievals. It is hoped that the atmospheric profile measured with the dropsondes is characteristic of the profile during the low level runs.

The main instruments performed as expected with only the 50 GHz channel of Deimos giving poor performance. The sortie went almost precisely as planned barring the over-shooting of the F2E2 transect at the end of the sortie.

Mission Scientist's Log

DigiMemo e-Page .....

Flight No **B**.346. Date 19/2/08 Name Chawn Harlow Page 1 of 3

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
172518	T/O				Fairbanks
180318	P1				Commense
180903	P1	FL100			Inter.
181238	P1	"			Re commense
181735	P1	FL059			End
181953	R1.1	FL055			C2 D2
	R1.1				
182314	P2				5600' → 4000'
182507	P2/R1.2				E2 F2
					ARIES/SWS Zenith views
					During reposition F2 → C2
					Conditions very good with
					very little cloud at any level.
					MS2 watching UFC to note
					cloud presence.
183246	R2	4300'			End
					No Cloud; CPhys no particles
184040					Ice fog ahead
184658	R3				Start C2 D2
185010	R3				End
185207	R4				Start E2 F2
185957	R4				End
			Richard's		68° 39' 48.9" N
			Position		149° 8' 45.3" W
191417	R5	3700'			Start E1 D1

191715

Mission Scientist's Log

DigiMemo e-Page .....

Flight No **B**..346.. Date 19/2/08..... Name C Harlow..... Page ..2.. of ..3..

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
~~191917~~					
191715	R5				End
192008	R6	2800'			Start E1 → F1
192735	R6				End
194143	R7	3800'			Start C3 → D3
194444	R7				End
194706	R8	2000'			Start E3 → F3
195437	R8				End
					Repositions all at 5000'
					ARIES/SWS Zenith view
					Heimann Cals in Repositions
200902	R9	3700'			C → D Start
201154	R9				End
~~201421~~ ~~201154~~	R10	2000'			Start G → H
					Snow deposition N-side of
					hills, scoured south side,
					protruding veg. in ravines, striations
					& drift patterns. Frozen lakes
					on N-S runs. Drift streaks
					E-W oriented N end of G-H
202206	R10	2000'			End
202228	~~R~~P3	2000'			Start
2052		FL295			Contrailing
210557	R11	FL350			Start / End P3
Sonde 1	210634				

Mission Scientist's Log

DigiMemo e-Page .....

Flight No **B**.346. Date 19/2/08 Name C. Harlow Page 3 of 3

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
210936	Sonde2	FL350			Still contrailing
2111					Ci below visible and ARIES can see
211149	R11				F2→E2
211309	R12.2				D2→C2 Start
Sonde 3	211316				Sonde 3
211557	R11.2				End Sat OP (21162 / 12162)
212605	R12.3	FL350			Start F2→E2
212631	Sonde4				Sonde 4
212901	Sonde5				Sonde 5
212927	R11.3				End
213200					End of Science
					SWS - Lost 5min in middle
					SHIMS - not well calibrated
					- check tomorrow
					CPhys - 2DC (noisy in cold fine at low level)
					ARIES - Good
					AVAPS - Good sondes
					- GPS a little late
					Heimann - Good
					MARSS/Deimos - Good except 50 GHz at end

CLOUD PHYSICS LOG Flight B346

Date: 19 Feb 2008	Operator: JC	DRS Time:	DAU1 Time:	DAU2 Time:	DAU3 Time:	Aux1 Time:	Aux2 Time:	Page 1 of 1

G.M.T	PCASP		FFSSP	SID1	SID2	2D2-C		2D2-P		CIP25			CIP100			Habit	Remarks
	Conc/cc	Mean R	Block TX	Count	Count	Conc/L	Max size	Conc/m3	Max size	Conc m3	Max size	LWC	Conc m3	Max size	LWC		
16:00																	SEADAS & SID1 time set
162500																	
165300																	
165600																	2dc & 2dp restarted
172518																	T/O, heaters on
173400																	Entering cloud, snow
173530	13	0.3		100		59	400	10000	0								
174700	31	0.27		100		38	650	5000	0								Transit, 2dp showind data but much noise
175100	9	0.09		3		0	0	250	0								Out of top of cloud layer 2dp settles to low counts ok., but still somewhat noisy
181800	10	0		0		0	0	0	0								End of P1, 2dp ok

162500
after warm up, in hangar before push back
pcasp vref = 9.00, flow 0.9
2dc ok
2dp ok
seadas not yet logging
sid1 running, not logging

165300

Seadas logging
2dc & 2dp switched off due refuelling activity

sid 1 logging

P Reference Volts =	FFSSP Reference Volts =	2D2-C End element 1 voltage =	CIP25 End element 1 voltage =	CIP100 End element 1 voltage =
PCASP Flow rate =		2D2-C End element 32 voltage =	CIP25 End element 64 voltage =	CIP100 End element 64 voltage =
	SID2 Laser power =	2D2-P End element 1 voltage =		

CLOUD PHYSICS LOG Flight B346

Date: 19 Feb 2008	Operator: JC	DRS Time:	DAU1 Time:	DAU2 Time:	DAU3 Time:	Aux1 Time:	Aux2 Time:	Page 2 of 2

G.M.T	PCASP		FFSSP	SID1	SID2	2D2-C		2D2-P		CIP25			CIP100			Habit	Remarks
	Conc/cc	Mean R	Block TX	Count	Count	Conc/L	Max size	Conc/m3	Max size	Conc m3	Max size	LWC	Conc m3	Max size	LWC		
181953	8	0		0		0	0	0	0								Start r1.1
182200	6	0		0		0	0	0	0								
182300	10	0		0		0	0	0	0								
182313	12	0		0		0	0	0	0								Start p2
182530	12	0		0		0	0	0	0								End p2 start 2.1
183036	12	0		0		0	0	0	0								
183246	17	0		0		0	0	0	0								End run 2.1
184710	10	0		0		0	0	0	0								Start r3
185010	10	0		0		0	0	0	0								End r3
185222	14	0		0		0	0	0	0								Start r4
185957	20	0		0		0	0	0	0								End r4
191417	10	0		0		0	0	0	0								Run 5
191715	11	0		0		0	0	0	0								End run 5
192008	13	0		0		0	0	0	0								Run 6
192735	16	0		0		0	0	0	0								End run 6
194143	6	0		0		0	0	0	0								Run 7
194444	11	0		0		0	0	0	0								End run 7
194706	13	0		0		0	0	0	0								Run 8
195437	16	0		0		0	0	0	0								End run 8
200902	6	0		0		0	0	0	0								Run 9
201154	10	0		0		0	0	0	0								End run 9
201421	13	0		0		0	0	0	0								Run 10
202206	16	0		0		0	0	0	0								End run 10
202228	16	0		0		0	0	0	0								Start profile 3

2dp turned off due noise.

P Reference Volts =	FFSSP Reference Volts =	2D2-C End element 1 voltage =	CIP25 End element 1 voltage =	CIP100 End element 1 voltage =
PCASP Flow rate =		2D2-C End element 32 voltage =	CIP25 End element 64 voltage =	CIP100 End element 64 voltage =
	SID2 Laser power =	2D2-P End element 1 voltage =		

CLOUD PHYSICS LOG Flight B346

Date: 19 Feb 2008	Operator: JC	DRS Time:	DAU1 Time:	DAU2 Time:	DAU3 Time:	Aux1 Time:	Aux2 Time:	Page 3 of 3

G.M.T	PCASP		FFSSP	SID1	SID2	2D2-C		2D2-P		CIP25			CIP100			Habit	Remarks
	Conc/cc	Mean R	Block TX	Count	Count	Conc/L	Max size	Conc/m3	Max size	Conc m3	Max size	LWC	Conc m3	Max size	LWC		
205750																	Occasional noise on 2dc, fl320
210557	3	0		0		0	0	off									Run 11.1
210634																	Sonde 1
210937																	Sonde 2
211149	5	0		0		noise		off									End run 11.1
211309	5	0		0		noise		Off									Run 11.2
211306																	Sonde 3
211557	6	0		0		noise		off									End run 11.2
212605	3	0		0		noise		off									Run 11.3
212631																	Sonde 4
212903																	Sonde 5
212927	4	0		0		noise		off									End run 11.3
220000																	Log to FM pc

213300
end of science, transit back to Fairbanks

pcasp voltage 8.1

P Reference Volts =	FFSSP Reference Volts =	2D2-C End element 1 voltage =	CIP25 End element 1 voltage =	CIP100 End element 1 voltage =
PCASP Flow rate =		2D2-C End element 32 voltage =	CIP25 End element 64 voltage =	CIP100 End element 64 voltage =
© Met Office 2007	SID2 Laser power =	2D2-P End element 1 voltage =		

CLOUD PHYSICS PROCESSING LOG

Flight number: B 346 T/O: 17:24:15
Date of Flight: 19/02/08 Land: 22:59:52

A) FFSSP PROCESSING		
Processing Stage	Completed	Comments
1) Transfer *.txt files from DVD to PC Bnnn_FFSSP_hh.txt for each hour of data Bnnn_FFSSP_HVMS.txt		FFSSP not fitted
2) FTP the files (ascii) from the PC to the directory PMSDATA: on FLOODS		
3) RUN MRFB:[PMS.FAST_FSSP]FSSP_EXTRACT_TAS a) Flight number: Bnnn b) Path name: MFDDATA:Bnnn_MFDX c) Output directory: PMSDATA: d) Start time: 0 if unknown e) End time: 240000 if unknown		NB Always use 0 and 240000 as times
4) RUN MRFB:[PMS.FAST_FSSP]FFSSP_PROCESS_TXT a) Flight number: Bnnn b) Directory: PMSDATA: c) TAS in processing: Y d) Vel threshold (clicks) 0 e) Calibration file: Use the most recent calibration file. Format FFSSP_CALddmmyyyy.txt Calibration files to be stored in MRFB:[PMS.FAST_FSSP] f) Adjust FFSSP time Y/N g) If Y, enter value to add to data time (seconds)		Note the calibration file used Total Glitches = Sec File written ok? Yes only if gross errors occur in FFSSP time eg; ~ 1hour
5) In PVWAVE a) enter: !path=!path+',mrfb:[pms.proc]' Note that the comma before "mrfb" is important! b) write_procffssp_to_m5,'pmsdata:Bnnn_procffssp.dat', 'mfddata:Bnnn_mfdX','pmsdata:Bnnn_m5procffssp',/auto 1st argument is output file from 5) 2nd argument is the MFD 3rd argument is the new FFSSP data file in M5 format		Note the correction applied to FFSSP time by /auto
c) exit		
6) MODIFY a) Modifying datasets: pmsdata:Bnnn_m5procffssp b) Datset: mfddata:Bnnn_mfdX c) New dataset: Enter updated MFD name d) Parameter description file: leave blank to use default		Note original and subsequent File sizes
7) CHECKS:		
i) FFSSP and JW/Nevzorov LWC – are they correctly synchronized in time?		
ii) If not, may be necessary to repeat 5b) using addt=x keyword. This adds x sec to FFSSP time.		

CLOUD PHYSICS PROCESSING LOG

Flight number: B346
Date: 19 Feb 2008

B) 2D PROCESSING		REPROCESS +1hr
Processing Stage	Completed	Comments
1) Transfer Bnnn.dat file from CD/DVD to PC		
2) Zip up file on PC (Bnnn.zip)		
3) FTP the zipped file (binary) from the PC to the directory SEADAS_DATA:[SEADAS_DATA] on FLOODS	Done	Zip data transferred from BADC To verify upload
4) Log on to FLOODS		
5) unzip SEADAS_DATA:[SEADAS_DATA]Bnnn.zip	Done	B346 205309 blocks
6) In PVWAVE i) !PATH=!PATH+',MRFB:[PMS.PROC]' ii) CONVERT_SEADAS_FILE a) Input file: SEADAS_DATA:[SEADAS_DATA]Bnnn.dat b) Output file: SEADAS_DATA:[SEADAS_DATA] Bnnn_seadas.dat iii) exit	 205309 205483	Note the number of bad block reads and/or final numbers of blocks read & written Blocks read 47543 Blocks written 47543 Bad reads 0
7) run MRFB:[PMS.SEADAS]READM200_FILE a) Default directory: PMSDATA: b) Flight number: Bnnn c) Disk file name: SEADAS_DATA:[SEADAS_DATA] Bnnn_seadas.dat d) Comment string: e) Start time: 0 if unknown f) End time: 240000 if unknown g) Read 2DC: Y h) Read 2DP: Y i) Secondary data Y j) FSP-SYNC: Y k) cmd.str: Y l) Auto time correction: N m) Full length secondary: N	 T/O – 5 min Land + 5 min	 Note times Ignore error message scroll Vestigial error from tapes Check FRW, FSP, IMB, PCA And SEC files exist and have data done
8) 2D image display and printing Quick look at image blocks if required In PVWAVE i) !PATH=!PATH+',MRFB:[PMS.PROC]' i) WAVE> IMAGEDISPLAY a) 2D directory name: PMSDATA: b) Flight number: Bnnn c) IWC plot: N d) Select probe: (1) 2DC (2) 2DP e) Start time: 0 if unknown f) End time: 240000 if unknown g) Time interval (sec): 0 for every image block nominal 5 sec		This must be done from Floods itself Note any problems with images

Preparation of imagery for Core data product		
iii) WAVE> auto_image a) 2D directory name: PMSDATA: b) Flight number: Bnnn c) Enter date: YYYYMMDD d) Enter start time 0 if unknown e) Enter end time 240000 if unknown f) Enter time interval (sec) between successive imaged blocks 10		Copy nos of pages to be produced [21] [28] Time to closest previous min
iv) exit PVWAVE Creates files	PMSDATA:	FAAM_YYYYMMDD_R0_Bnnn_2Dx-IMAGES.PS
ftp *.PS files from PMSDATA: to PC		Note files are ascii
Load each into Ghostview or other pdf-converter		
Output as pdf file (70 dpi resolution) and append name prefix of CORE-CLOUD-PHY_ to converted files	Done	
9) run MRFB:[PMS.SPEC2D.AUTO]PROCESS2D_AUTO a) Flight number: Bnnn b) Directory: PMSDATA: c) File generation: Hit enter d) Time correction: Time offset of the 2D data		NB an error message may Appear, floating point Exception, rerun and use Time quoted in error Message, repeat until
e) TAS: Y f) MFD directory: MFDDATA:Bnnn_MFDX g) Probe number: (1) 2DC (2) 2DP (0) Both 0 unless either probe known to be faulty h) Start time: 0 if unknown i) End time: 240000 if unknown j) Nominal averaging: 0.2 seconds for conversion to M5 k) Particle type: 8 if known to be in ice cloud 11 if known to be in water cloud 8 if known to be in mixed-phase 8 if unknown l) Coefficient choice: 2 m) Output root filename: PMSDATA:Bnnn_PROC2D	T/O + 30sec Land – 30sec	Successful. Note time data processed up to Check 2dproc files present 2dc, 2dp and dat OK
10) In PVWAVE i) enter: !PATH=!PATH+',MRFB:[PMS.PROC]' Note that the comma before "mrfb" is important! ii) WRITE_PROC2D_TO_M5, 'PMSDATA:BNNN_PROC2D.DAT', 'PMSDATA:BNNN_M5PROC2D' iii) exit		Error message about HDDR File should be ignored. Note records Note file size
11) MODIFY a) Modifying datasets: pmsdata:Bnnn_m5proc2D b) Datset: mfddata:Bnnn_mfdX c) New dataset: Enter modified MFD name d) Parameter description file: leave blank to use default		
12) CHECKS:		
i) Is 2DC/2DP IWC of comparable magnitude and well-correlated with Nevzorov TWC?		

CLOUD PHYSICS PROCESSING LOG

Flight number:
Date:

C) PCASP PROCESSING		
Processing Stage	Completed	Comments
1) Complete stage 7) in 2D processing Ensures Bnnn_FSP.DAT containing raw PCASP data is written to directory PMSDATA:		
2) run MRFB:[PMS.PCASP]PROCPCASP_NEW a) Flight number: Bnnn b) File name: PMSDATA:Bnnn_FSP.DAT c) Root output name: PMSDATA:Bnnn_PROCPCASP Produces PMSDATA:Bnnn_PROCPCASP.DAT (binary) PMSDATA:Bnnn_PROCPCASP.OUT (ascii) d) Minimum size channel: Default = 1 If smallest size channel are known to be noisy the value of the highest noise free channel to be entered here e) Calibration volume flow rate: Use the most recent value. 1.8ccs^{-1} (Calibration files to be stored in **Exeter** Entering zero gives default value = 1.0 cm3/sec f) Time correction: Same value as used in 2D processing stage 9 d) g) Start time: 0 if unknown h) End time: 240000 if unknown		Note the min size channel Note the volume flow rate Processing could not proceed beyond this point; asked for "full name of mfd"
3) In PVWAVE i) enter: !PATH=!PATH+',MRFB:[PMS.PROC]' Note that the comma before "mrfb" is important! ii) write_procpcasp_to_m5,'pmsdata:Bnnn_procpcasp.dat' ,'pmsdata:Bnnn_m5procpcasp' iii) exit		
4) MODIFY a) Modifying datasets: pmsdata:Bnnn_m5procpcasp b) Datset: mfddata:Bnnn_mfdX c) New dataset: Enter modified MFD name d) Parameter description file: leave blank to use default		

FAAM Dropsonde Flight Log

Flight No.	B346	**Date**	19/02/2008	**Operator**	DHA	**Page No.**	1 of 1

GMT	**Sonde No.**	**Event** *eg land, splashdown*	**Comments** *pressure hPa, T deg C, RH %, wind direction deg, wind speed m/s, **longitude, latitude**, height m*
21:06:36	1	Launch	238.20 -57.80 46.13 224.80 44.60 -18.60 **-148.956600 69.212600** 10674.10
21:18:01	1	Land	974.63 -7.73 53.80 202.62 5.38 -11.26 **-148.728544 69.297909** 595.53
			Surface alt unknown ticked
21:09:39	2	Launch	238.10 -58.10 37.59 231.70 48.50 -17.30 **-148.937600 68.954300** 10675.70
21:20:41	2	Land	956.65 -6.25 58.95 32.06 1.11 -11.43 **-148.739385 69.035732** 738.64
			End drop time override 662.5 Surface alt unknown ticked
21:13:18	3	Launch	237.70 -56.00 24.26 237.50 45.10 -18.60 **-149.020900 68.660300** 10686.20 0 24.26 24.26
21:24:11	3	Land	936.80 -3.55 48.99 192.22 4.86 -11.88 **-148.842276 68.743357** 885.90 12 48.99 47.92
			End drop time override 653.3 Surface alt unknown ticked
21:26:33	4	Launch	237.90 -57.80 25.29 234.40 48.20 -17.30 **-148.904800 69.013400** 10682.60
21:37:51	4	Land	943.94 -3.10 54.24 130.27 2.48 -10.90 **-148.698149 69.095899** 838.69
			End drop time override Surface alt unknown ticked
21:29:09	5	Launch	238.10 -56.90 21.69 235.40 45.60 -17.50 **-149.041600 68.806500** 10677.40
21:40:03	5	Land	953.25 -4.65 999.00 182.09 4.45 -11.40 **-148.859118 68.889864** 750.66
			End drop time override 678.4 Surface alt unknown ticked

B346_SWS_SHIMS_EventLog.txt

```
15:30:30.13  ---      -     -     -     -
15:30:30.14  ---      -     -     -     -  +++ SOFTWARE START/RESTART +++
15:30:30.14  ---      -     -     -     -  +++ hh:mm:ss.ff / Instr / Posn / Period /
tVIS/ tNIR / Comment +++
15:30:30.14  ---      -     -     -     -  +++ Flight no. B346
15:30:30.14  ---      -     -     -     -
15:30:51.91  SWS      -     -     -     -  Telescope motor initialised.
15:31:13.47  SWS      -     -     -     -  Initialization: VIS OK NIR OK
15:31:24.38  USH      -     -     -     -  Initialization: VIS OK NIR OK
15:31:33.03  LSH      -     -     -     -  Initialization: VIS OK NIR OK
15:31:58.80  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
15:31:58.80  LSH      -     -     -     -  Manual scene sampling started - Not Recording!
15:31:58.81  USH      -     -     -     -  Manual scene sampling started - Not Recording!
15:32:05.28  SWS      -     -   600     -  VIS int.time changed from 5ms to 600ms.
15:32:07.22  SWS      -     -     -   600  NIR int.time changed from 5ms to 600ms.
15:32:11.16  USH      -     -   600     -  VIS int.time changed from 5ms to 600ms.
15:32:12.98  USH      -     -     -   600  NIR int.time changed from 5ms to 600ms.
15:32:22.37  LSH      -     -   600     -  VIS int.time changed from 5ms to 600ms.
15:32:24.24  LSH      -     -     -   600  NIR int.time changed from 5ms to 600ms.
15:32:53.17  SWS    0.0     -     -     -  Telescope stopped.
15:32:55.69  SWS    0.0     -     -     -  Telescope sent to 118.658
15:32:57.35  SWS  118.6     -     -     -  Telescope stopped.
15:33:35.23  ---      -     -     -     -  Reset shutters.
15:33:42.68  LSH      -     -     -     -  Dark measurement started.
15:33:42.77  SWS      -     -     -     -  Dark measurement started.
15:33:43.06  USH      -     -     -     -  Dark measurement started.
15:33:49.12  LSH      -     -     -     -  Manual scene sampling started - Not Recording!
15:33:49.31  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
15:33:49.51  USH      -     -     -     -  Manual scene sampling started - Not Recording!
15:34:10.95  SWS  123.7     -     -     -  Telescope stopped.
15:34:12.36  SWS  123.7     -     -     -  Telescope sent to -6.000
15:34:17.92  SWS  123.7     -     -     -  Telescope sent to 174.000
15:34:31.30  SWS  123.7     -     -     -  Telescope sent to -6.000
15:34:35.46  SWS  123.7     -     -     -  Telescope sent to 174.000
15:34:46.98  SWS  123.7     -     -     -  Telescope sent to 92.746
15:35:25.20  ---      -     -     -     -  *** Note: activating web server disables motor
position indicator
16:12:11.08  ---      -     -     -     -  Reset shutters.
16:12:14.90  USH      -     -     -     -  Dark measurement started.
16:12:21.34  USH      -     -     -     -  Manual scene sampling started - Not Recording!
16:12:26.02  USH      -     -     -     -  Dark measurement started.
16:12:26.14  SWS      -     -     -     -  Dark measurement started.
16:12:26.15  LSH      -     -     -     -  Dark measurement started.
16:12:32.47  USH      -     -     -     -  Manual scene sampling started - Not Recording!
16:12:32.67  LSH      -     -     -     -  Manual scene sampling started - Not Recording!
16:12:32.87  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
16:12:52.03  ---      -     -     -     -  *** Box temp +3c
16:51:14.90  LSH      -     -     -     -  Idling
16:51:14.92  USH      -     -     -     -  Idling
16:51:14.97  SWS      -     -     -     -  Idling
16:51:23.24  SWS      -     -     -     -  Dark measurement started.
16:51:23.24  LSH      -     -     -     -  Dark measurement started.
16:51:23.25  USH      -     -     -     -  Dark measurement started.
16:51:29.69  SWS      -     -     -     -  Idling
16:51:29.89  LSH      -     -     -     -  Idling
16:51:30.09  USH      -     -     -     -  Idling
16:51:34.85  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
16:51:34.85  LSH      -     -     -     -  Manual scene sampling started - Not Recording!
16:51:34.87  USH      -     -     -     -  Manual scene sampling started - Not Recording!
16:51:52.88  ---      -     -     -     -  *** Box temp -3c
16:55:54.25  SWS  123.7     -     -     -  Telescope sent to 120.882
17:02:28.24  ---      -     -     -     -  Reset shutters.
17:02:34.22  SWS      -     -     -     -  Dark measurement started.
17:02:34.25  LSH      -     -     -     -  Dark measurement started.
17:02:34.27  USH      -     -     -     -  Dark measurement started.
17:02:40.66  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
17:02:40.87  LSH      -     -     -     -  Manual scene sampling started - Not Recording!
```

17:02:41.08	USH	-	-	-	-	Manual scene sampling started - Not Recording!
17:02:56.79	---	-	-	-	-	*** Box temp -5c
17:29:18.61	---	-	-	-	-	Reset shutters.
17:29:23.11	SWS	-	-	-	-	Dark measurement started.
17:29:23.21	LSH	-	-	-	-	Dark measurement started.
17:29:23.90	USH	-	-	-	-	Dark measurement started.
17:29:29.58	SWS	-	-	-	-	Manual scene sampling started - Not Recording!
17:29:29.75	LSH	-	-	-	-	Manual scene sampling started - Not Recording!
17:29:30.36	USH	-	-	-	-	Manual scene sampling started - Not Recording!
17:29:38.48	SWS	123.7	-	-	-	Telescope sent to 174.000
17:29:58.57	SWS	-	-	400	-	VIS int.time changed from 600ms to 400ms.
17:29:58.58	SWS	-	-	-	400	NIR int.time changed from 600ms to 400ms.
17:30:04.45	USH	-	-	400	-	VIS int.time changed from 600ms to 400ms.
17:30:04.46	USH	-	-	-	400	NIR int.time changed from 600ms to 400ms.
17:30:08.89	LSH	-	-	400	-	VIS int.time changed from 600ms to 400ms.
17:30:08.91	LSH	-	-	-	400	NIR int.time changed from 600ms to 400ms.
17:30:24.38	SWS	-	-	-	-	Dark measurement started.
17:30:24.56	USH	-	-	-	-	Dark measurement started.
17:30:24.99	LSH	-	-	-	-	Dark measurement started.
17:30:28.83	SWS	-	-	-	-	Manual scene sampling started - Not Recording!
17:30:29.02	USH	-	-	-	-	Manual scene sampling started - Not Recording!
17:30:29.47	LSH	-	-	-	-	Manual scene sampling started - Not Recording!
17:30:35.73	USH	-	-	-	-	Manual scene recording started.
17:30:36.12	LSH	-	-	-	-	Manual scene recording started.
17:30:36.46	SWS	-	-	-	-	Manual scene recording started.
17:30:54.90	---	-	-	-	-	*** t/o at 1724
17:31:14.07	---	-	-	-	-	*** box temp -6c
17:38:53.79	SWS	123.7	-	-	-	Telescope sent to -6.000
17:42:27.42	SWS	123.7	-	-	-	Telescope sent to 174.000
17:42:39.44	USH	-	-	-	-	Dark measurement started.
17:42:39.48	SWS	-	-	-	-	Dark measurement started.
17:42:39.58	LSH	-	-	-	-	Dark measurement started.
17:42:43.93	USH	-	-	-	-	Manual scene recording started.
17:42:44.13	SWS	-	-	-	-	Manual scene recording started.
17:42:44.32	LSH	-	-	-	-	Manual scene recording started.
17:42:50.65	---	-	-	-	-	Reset shutters.
17:42:56.62	SWS	-	-	-	-	Dark measurement started.
17:42:56.95	LSH	-	-	-	-	Dark measurement started.
17:42:56.95	USH	-	-	-	-	Dark measurement started.
17:43:01.12	SWS	-	-	-	-	Manual scene recording started.
17:43:01.41	LSH	-	-	-	-	Manual scene recording started.
17:43:01.61	USH	-	-	-	-	Manual scene recording started.
17:43:40.91	---	-	-	-	-	*** box temp -7c
17:57:49.76	LSH	-	-	-	-	Dark measurement started.
17:57:49.81	USH	-	-	-	-	Dark measurement started.
17:57:49.85	SWS	-	-	-	-	Dark measurement started.
17:57:50.59	USH	-	-	-	-	Dark measurement started.
17:57:54.21	LSH	-	-	-	-	Manual scene recording started.
17:57:54.63	SWS	-	-	-	-	Manual scene recording started.
17:57:55.08	USH	-	-	-	-	Idling
17:58:00.23	USH	-	-	-	-	Manual scene recording started.
17:58:10.93	SWS	123.7	-	-	-	Telescope sent to -6.000
18:00:49.22	SWS	123.7	-	-	-	Telescope sent to 174.000
18:01:07.18	USH	-	-	-	-	Dark measurement started.
18:01:07.23	SWS	-	-	-	-	Dark measurement started.
18:01:07.28	LSH	-	-	-	-	Dark measurement started.
18:01:11.71	USH	-	-	-	-	Manual scene recording started.
18:01:11.92	SWS	-	-	-	-	Manual scene recording started.
18:01:12.11	LSH	-	-	-	-	Manual scene recording started.
18:01:25.57	---	-	-	-	-	*** box temp -8c
18:03:37.28	---	-	-	-	-	*** Start of P1 from FL160
18:17:45.22	---	-	-	-	-	*** End of P1
18:18:44.57	---	-	-	-	-	Reset shutters.
18:18:47.97	SWS	-	-	-	-	Dark measurement started.
18:18:48.03	USH	-	-	-	-	Dark measurement started.
18:18:48.25	LSH	-	-	-	-	Dark measurement started.
18:18:52.48	SWS	-	-	-	-	Manual scene recording started.
18:18:52.67	USH	-	-	-	-	Manual scene recording started.
18:18:52.93	LSH	-	-	-	-	Manual scene recording started.

```
18:20:01.73  ---      -     -     -     -  *** Start of Run 1.1
18:20:34.10  ---      -     -     -     -  *** box temp -9c
18:23:19.66  ---      -     -     -     -  *** End of Run 1.1
18:23:31.88  ---      -     -     -     -  *** Start of P2
18:24:11.31  ---      -     -     -     -  *** box temp -10c
18:25:12.06  ---      -     -     -     -  *** edn P start run 1.2
18:33:07.77  ---      -     -     -     -  *** end run
18:33:50.01  SWS      -     -     -     -  Dark measurement started.
18:33:50.34  USH      -     -     -     -  Dark measurement started.
18:33:50.38  LSH      -     -     -     -  Dark measurement started.
18:33:54.49  SWS      -     -     -     -  Manual scene recording started.
18:33:54.80  USH      -     -     -     -  Manual scene recording started.
18:33:55.00  LSH      -     -     -     -  Manual scene recording started.
18:35:36.08  SWS  123.7     -     -     -  Telescope sent to -6.000
18:38:52.69  SWS  123.7     -     -     -  Telescope sent to 174.000
18:39:44.02  USH      -     -     -     -  Dark measurement started.
18:39:44.07  LSH      -     -     -     -  Dark measurement started.
18:39:44.20  SWS      -     -     -     -  Dark measurement started.
18:39:48.50  USH      -     -     -     -  Manual scene recording started.
18:39:48.70  LSH      -     -     -     -  Manual scene recording started.
18:39:48.90  SWS      -     -     -     -  Manual scene recording started.
18:47:10.83  ---      -     -     -     -  *** Start of R3
18:50:19.73  ---      -     -     -     -  *** End of Run
18:50:42.65  LSH      -     -     -     -  Dark measurement started.
18:50:42.70  USH      -     -     -     -  Dark measurement started.
18:50:42.92  SWS      -     -     -     -  Dark measurement started.
18:50:47.14  LSH      -     -     -     -  Manual scene recording started.
18:50:47.36  USH      -     -     -     -  Manual scene recording started.
18:50:47.53  SWS      -     -     -     -  Manual scene recording started.
18:52:08.61  ---      -     -     -     -  *** Start of Run
18:59:59.54  ---      -     -     -     -  *** end run 4
19:00:05.67  USH      -     -     -     -  Dark measurement started.
19:00:05.86  SWS      -     -     -     -  Dark measurement started.
19:00:05.91  LSH      -     -     -     -  Dark measurement started.
19:00:10.18  USH      -     -     -     -  Manual scene recording started.
19:00:10.55  LSH      -     -     -     -  Manual scene recording started.
19:00:10.83  SWS      -     -     -     -  Manual scene recording started.
19:03:17.48  SWS  123.7     -     -     -  Telescope sent to -6.000
19:06:28.90  SWS  123.7     -     -     -  Telescope sent to 174.000
19:06:36.03  USH      -     -     -     -  Dark measurement started.
19:06:36.15  LSH      -     -     -     -  Dark measurement started.
19:06:36.19  SWS      -     -     -     -  Dark measurement started.
19:06:40.56  USH      -     -     -     -  Manual scene recording started.
19:06:40.73  LSH      -     -     -     -  Manual scene recording started.
19:06:40.93  SWS      -     -     -     -  Manual scene recording started.
19:06:46.73  SWS      -     -   200     -  VIS int.time changed from 400ms to 200ms.
19:06:46.73  SWS      -     -     -   200  NIR int.time changed from 400ms to 200ms.
19:06:51.24  SWS      -     -     -     -  Dark measurement started.
19:06:53.79  SWS      -     -     -     -  Manual scene recording started.
19:14:19.71  ---      -     -     -     -  *** Start of Run
19:17:32.84  ---      -     -     -     -  *** End of Run5
19:18:21.78  USH      -     -     -     -  Dark measurement started.
19:18:21.88  SWS      -     -     -     -  Dark measurement started.
19:18:21.92  LSH      -     -     -     -  Dark measurement started.
19:18:24.49  SWS      -     -     -     -  Manual scene recording started.
19:18:26.28  USH      -     -     -     -  Manual scene recording started.
19:18:26.79  LSH      -     -     -     -  Manual scene recording started.
19:20:11.33  ---      -     -     -     -  *** Start of Run6
19:20:15.13  SWS  123.7     -     -     -  Telescope sent to -6.000
19:22:14.31  SWS  123.7     -     -     -  Telescope sent to 174.000
19:27:37.10  ---      -     -     -     -  *** End of Run6
19:27:41.31  USH      -     -     -     -  Dark measurement started.
19:27:41.36  SWS      -     -     -     -  Dark measurement started.
19:27:41.42  LSH      -     -     -     -  Dark measurement started.
19:27:44.14  SWS      -     -     -     -  Manual scene recording started.
19:27:45.91  USH      -     -     -     -  Manual scene recording started.
19:27:46.35  LSH      -     -     -     -  Manual scene recording started.
19:30:10.73  SWS  123.7     -     -     -  Telescope sent to -6.000
19:33:20.42  SWS  123.7     -     -     -  Telescope sent to 174.000
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19:40:47.37  SWS      -     -     -     -  Dark measurement started.
19:40:47.39  LSH      -     -     -     -  Dark measurement started.
19:40:47.74  USH      -     -     -     -  Dark measurement started.
19:40:49.86  SWS      -     -     -     -  Manual scene recording started.
19:40:52.07  LSH      -     -     -     -  Manual scene recording started.
19:40:52.33  USH      -     -     -     -  Manual scene recording started.
19:41:44.46  ---      -     -     -     -  *** Start of Run7
19:44:45.93  ---      -     -     -     -  *** End of Run
19:45:46.42  SWS      -     -     -     -  Dark measurement started.
19:45:46.57  USH      -     -     -     -  Dark measurement started.
19:45:46.66  LSH      -     -     -     -  Dark measurement started.
19:45:49.01  SWS      -     -     -     -  Manual scene recording started.
19:45:51.12  USH      -     -     -     -  Manual scene recording started.
19:45:51.33  LSH      -     -     -     -  Manual scene recording started.
19:47:07.89  ---      -     -     -     -  *** Start of Run8
19:52:46.37  SWS      -     -     -     -  Dark measurement started.
19:52:48.82  SWS      -     -     -     -  Manual scene recording started.
19:52:56.87  SWS      -     -   100     -  VIS int.time changed from 200ms to 100ms.
19:52:56.88  SWS      -     -     -   100  NIR int.time changed from 200ms to 100ms.
19:53:00.03  SWS      -     -     -     -  Dark measurement started.
19:53:01.48  SWS      -     -     -     -  Manual scene recording started.
19:53:05.29  ---      -     -     -     -  Reset shutters.
19:53:50.35  ---      -     -     -     -  *** SWS NIR dropped out...
19:54:45.35  ---      -     -     -     -  *** End of Run
19:55:02.63  SWS      -     -     -     -  Manual scene sampling started - Not Recording!
19:55:19.80  SWS      -     -     -     -  Manual scene recording started.
19:56:36.85  ---      -     -     -     -
19:56:36.86  ---      -     -     -     -  +++ SOFTWARE START/RESTART +++
19:56:36.86  ---      -     -     -     -  +++ hh:mm:ss.ff / Instr / Posn / Period /
tVIS/ tNIR / Comment +++
19:56:36.87  ---      -     -     -     -  +++ Flight no. B346
19:56:36.87  ---      -     -     -     -
19:56:40.74  SWS      -     -     -     -  Initialization: VIS FAILED NIR FAILED
19:56:45.18  USH      -     -     -     -  Initialization: VIS FAILED NIR FAILED
19:56:47.25  LSH      -     -     -     -  Initialization: VIS FAILED NIR FAILED
19:57:41.64  ---      -     -     -     -
19:57:41.64  ---      -     -     -     -  +++ SOFTWARE START/RESTART +++
19:57:41.64  ---      -     -     -     -  +++ hh:mm:ss.ff / Instr / Posn / Period /
tVIS/ tNIR / Comment +++
19:57:41.64  ---      -     -     -     -  +++ Flight no. B346
19:57:41.64  ---      -     -     -     -
19:57:55.03  SWS      -     -     -     -  Initialization: VIS OK NIR OK
19:57:59.35  USH      -     -     -     -  Initialization: VIS OK NIR OK
19:58:01.59  LSH      -     -     -     -  Initialization: VIS OK NIR OK
19:58:44.97  SWS      -     -   100     -  VIS int.time changed from 5ms to 100ms.
19:58:46.63  SWS      -     -     -   100  NIR int.time changed from 5ms to 100ms.
19:58:51.76  USH      -     -   400     -  VIS int.time changed from 5ms to 400ms.
19:58:53.46  USH      -     -     -   400  NIR int.time changed from 5ms to 400ms.
19:58:57.20  LSH      -     -   600     -  VIS int.time changed from 5ms to 600ms.
19:59:00.71  LSH      -     -   400     -  VIS int.time changed from 600ms to 400ms.
19:59:03.86  LSH      -     -     -   400  NIR int.time changed from 5ms to 400ms.
19:59:06.50  SWS      -     -     -     -  Dark measurement started.
19:59:06.50  LSH      -     -     -     -  Dark measurement started.
19:59:06.51  USH      -     -     -     -  Dark measurement started.
19:59:07.30  SWS      -     -     -     -  Warning: Abnormally bright dark measurement.
19:59:07.87  LSH      -     -     -     -  Warning: Abnormally bright dark measurement.
19:59:08.13  USH      -     -     -     -  Warning: Abnormally bright dark measurement.
19:59:08.82  SWS      -     -     -     -  Idling
19:59:10.66  ---      -     -     -     -  Reset shutters.
19:59:11.69  LSH      -     -     -     -  Idling
19:59:11.95  USH      -     -     -     -  Idling
19:59:14.79  LSH      -     -     -     -  Dark measurement started.
19:59:14.79  USH      -     -     -     -  Dark measurement started.
19:59:14.82  SWS      -     -     -     -  Dark measurement started.
19:59:16.63  SWS      -     -     -     -  Idling
19:59:19.22  LSH      -     -     -     -  Idling
19:59:19.43  USH      -     -     -     -  Idling
19:59:20.60  SWS      -     -     -     -  Manual scene recording started.
19:59:20.60  LSH      -     -     -     -  Manual scene recording started.
```

19:59:20.61	USH	-	-	-	-	Manual scene recording started.
19:59:30.40	SWS	-	-	-	-	Telescope motor initialised.
19:59:37.99	SWS	-0.0	-	-	-	Telescope sent to -6.000
20:01:35.41	SWS	-6.0	-	-	-	Telescope sent to 174.000
20:01:37.08	SWS	169.9	-	-	-	Telescope stopped.
20:03:16.55	SWS	123.7	-	-	-	Telescope stopped.
20:09:09.21	---	-	-	-	-	*** Start of Run 9
20:12:05.86	---	-	-	-	-	*** End of Run9
20:12:09.89	USH	-	-	-	-	Dark measurement started.
20:12:09.91	SWS	-	-	-	-	Dark measurement started.
20:12:09.92	LSH	-	-	-	-	Dark measurement started.
20:12:10.42	SWS	-	-	-	-	Warning: Abnormally bright dark measurement.
20:12:10.52	USH	-	-	-	-	Warning: Abnormally bright dark measurement.
20:12:10.92	LSH	-	-	-	-	Warning: Abnormally bright dark measurement.
20:12:11.56	SWS	-	-	-	-	Manual scene recording started.
20:12:14.42	USH	-	-	-	-	Manual scene recording started.
20:12:14.75	LSH	-	-	-	-	Manual scene recording started.
20:12:17.48	---	-	-	-	-	Reset shutters.
20:12:22.17	LSH	-	-	-	-	Dark measurement started.
20:12:22.19	SWS	-	-	-	-	Dark measurement started.
20:12:22.24	USH	-	-	-	-	Dark measurement started.
20:12:23.82	SWS	-	-	-	-	Manual scene recording started.
20:12:26.62	LSH	-	-	-	-	Manual scene recording started.
20:12:27.02	USH	-	-	-	-	Manual scene recording started.
20:14:27.68	---	-	-	-	-	*** Start of Run 10
20:22:08.16	---	-	-	-	-	*** End of Run
20:22:10.78	SWS	-	-	-	-	Dark measurement started.
20:22:11.00	USH	-	-	-	-	Dark measurement started.
20:22:11.02	LSH	-	-	-	-	Dark measurement started.
20:22:12.25	SWS	-	-	-	-	Manual scene recording started.
20:22:15.45	USH	-	-	-	-	Manual scene recording started.
20:22:15.70	LSH	-	-	-	-	Manual scene recording started.
20:22:41.54	---	-	-	-	-	*** Start of P3
20:33:44.71	SWS	-	-	-	-	Dark measurement started.
20:33:44.81	USH	-	-	-	-	Dark measurement started.
20:33:44.96	LSH	-	-	-	-	Dark measurement started.
20:33:46.15	SWS	-	-	-	-	Manual scene recording started.
20:33:49.34	USH	-	-	-	-	Manual scene recording started.
20:33:49.57	LSH	-	-	-	-	Manual scene recording started.
20:33:53.45	LSH	-	-	-	400	NIR int.time changed from 400ms to 400ms.
20:33:58.11	LSH	-	-	-	600	NIR int.time changed from 400ms to 600ms.
20:34:01.61	LSH	-	-	-	-	Dark measurement started.
20:34:08.07	LSH	-	-	-	-	Manual scene recording started.
20:35:31.66	LSH	-	-	-	400	NIR int.time changed from 600ms to 400ms.
20:35:35.93	LSH	-	-	-	-	Dark measurement started.
20:35:40.38	LSH	-	-	-	-	Manual scene recording started.
20:36:49.32	LSH	-	-	-	400	NIR int.time changed from 400ms to 400ms.
20:36:53.14	LSH	-	-	-	600	NIR int.time changed from 400ms to 600ms.
20:36:57.17	LSH	-	-	-	-	Dark measurement started.
20:37:03.63	LSH	-	-	-	-	Manual scene recording started.
20:37:46.93	LSH	-	-	-	400	NIR int.time changed from 600ms to 400ms.
20:37:49.76	LSH	-	-	-	-	Dark measurement started.
20:37:54.22	LSH	-	-	-	-	Manual scene recording started.
20:47:28.75	USH	-	-	-	-	Idling
20:47:28.88	SWS	-	-	-	-	Idling
20:47:28.91	LSH	-	-	-	-	Idling
20:47:30.08	SWS	-	-	-	-	Dark measurement started.
20:47:30.08	LSH	-	-	-	-	Dark measurement started.
20:47:30.10	USH	-	-	-	-	Dark measurement started.
20:47:31.53	SWS	-	-	-	-	Idling
20:47:34.73	LSH	-	-	-	-	Idling
20:47:34.95	USH	-	-	-	-	Idling
20:47:37.10	USH	-	-	-	-	Manual scene recording started.
20:47:37.10	LSH	-	-	-	-	Manual scene recording started.
20:47:37.11	SWS	-	-	-	-	Manual scene recording started.
20:56:55.78	---	-	-	-	-	Reset shutters.
20:57:00.30	USH	-	-	-	-	Dark measurement started.
20:57:02.94	SWS	-	-	-	-	Dark measurement started.
20:57:04.40	SWS	-	-	-	-	Manual scene recording started.

```
20:57:04.75  USH      -     -     -     -  Manual scene recording started.
20:57:05.71  LSH      -     -     -     -  Dark measurement started.
20:57:10.16  LSH      -     -     -     -  Manual scene recording started.
21:06:18.65  ---      -     -     -     -  *** End P Start of Run 11
21:11:36.28  ---      -     -     -     -  *** end run
21:12:12.61  ---      -     -     -     -  *** End of Run proprtly
21:12:30.77  ---      -     -     -     -  Reset shutters.
21:12:36.87  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:12:37.13  SWS      -     -     -     -  Dark measurement started.
21:12:37.30  LSH      -     -     -     -  Dark measurement started.
21:12:37.44  USH      -     -     -     -  Dark measurement started.
21:12:38.60  SWS      -     -     -     -  Manual scene recording started.
21:12:41.78  LSH      -     -     -     -  Manual scene recording started.
21:12:41.98  USH      -     -     -     -  Manual scene recording started.
21:12:42.42  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:13:12.64  ---      -     -     -     -  *** start run 12
21:14:23.81  ---      -     -     -     -  *** Run is actually 11.2...
21:16:02.98  ---      -     -     -     -  *** end run
21:16:07.98  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:16:43.31  SWS      -     -     -     -  Dark measurement started.
21:16:43.43  USH      -     -     -     -  Dark measurement started.
21:16:43.68  LSH      -     -     -     -  Dark measurement started.
21:16:44.76  SWS      -     -     -     -  Manual scene recording started.
21:16:47.97  USH      -     -     -     -  Manual scene recording started.
21:16:48.20  LSH      -     -     -     -  Manual scene recording started.
21:16:52.06  ---      -     -     -     -  Reset shutters.
21:16:56.04  LSH      -     -     -     -  Dark measurement started.
21:16:56.19  SWS      -     -     -     -  Dark measurement started.
21:16:56.22  USH      -     -     -     -  Dark measurement started.
21:16:57.71  SWS      -     -     -     -  Manual scene recording started.
21:17:00.51  LSH      -     -     -     -  Manual scene recording started.
21:17:00.91  USH      -     -     -     -  Manual scene recording started.
21:22:01.90  ---      -     -     -     -  *** start run
21:24:43.69  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:25:08.01  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:25:38.29  LSH      -     -     -     -  Warning: Clipping may be occurring.
21:26:06.55  ---      -     -     -     -  *** Real start of run...
21:26:53.80  USH      -     -   300     -  VIS int.time changed from 400ms to 300ms.
21:26:53.81  USH      -     -     -   300  NIR int.time changed from 400ms to 300ms.
21:26:55.56  USH      -     -     -     -  Dark measurement started.
21:26:59.03  USH      -     -     -     -  Manual scene recording started.
21:27:01.49  LSH      -     -   300     -  VIS int.time changed from 400ms to 300ms.
21:27:01.50  LSH      -     -     -   300  NIR int.time changed from 400ms to 300ms.
21:27:03.75  LSH      -     -     -     -  Dark measurement started.
21:27:07.22  LSH      -     -     -     -  Manual scene recording started.
21:29:39.90  ---      -     -     -     -  *** End of Run 11.3
21:29:45.69  USH      -     -     -     -  Dark measurement started.
21:29:45.95  SWS      -     -     -     -  Dark measurement started.
21:29:46.00  LSH      -     -     -     -  Dark measurement started.
21:29:47.43  SWS      -     -     -     -  Manual scene recording started.
21:29:49.14  USH      -     -     -     -  Manual scene recording started.
21:29:49.61  LSH      -     -     -     -  Manual scene recording started.
21:29:52.08  SWS  123.7     -     -     -  Telescope sent to -6.000
21:32:33.15  SWS  123.7     -     -     -  Telescope sent to 174.000
21:33:42.76  SWS      -     -     -     -  Dark measurement started.
21:33:42.83  LSH      -     -     -     -  Dark measurement started.
21:33:42.87  USH      -     -     -     -  Dark measurement started.
21:33:44.24  SWS      -     -     -     -  Manual scene recording started.
21:33:46.43  LSH      -     -     -     -  Manual scene recording started.
21:33:46.62  USH      -     -     -     -  Manual scene recording started.
21:35:28.32  ---      -     -     -     -  *** End of science, kit switched off
21:41:03.44  LSH      -     -     -     -  Idling
21:41:03.46  SWS      -     -     -     -  Idling
21:41:03.50  USH      -     -     -     -  Idling
21:41:09.98  SWS      -     -     -     -  Instrument closed.
21:41:11.69  USH      -     -     -     -  Instrument closed.
21:41:13.27  LSH      -     -     -     -  Instrument closed.
21:41:21.49  SWS      -     -     -     -  Telescope disabled.
21:41:28.62  ---      -     -     -     -  *** SHUTTING DOWN...
```

```
21:41:28.85  SWS      -     -     -     -  Telescope motor control quit.
```

cal script ends on Nad+90°

ARIES flight log

Flight: B46 | page 1 of

Date: 19/02/08 | Operator(s): Joss | Res: 1 | Gain A: 2 B: 2

Loc./Notes: CLPX II North Slope Alaska.

Scans: either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]". View: mirror angle.

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
1510	Started	data		acq	Dsorder.		
155835	Cal	1/120	HBB	dsd	71.13	31.04	HBB Cal.
155949	Cal	1/120	CBB	dsd	71.13	31.85	CBB Cal.
173935	Transit	1/120	HBB	dsd			CBB set to 20°C.
174155	Trans)2	1/120	HBB	dsd	70.99	22.62	
174310	Transit	1/120	CBB	dsd	7069	22.25	
181905	R1-1	cal script	Nad	dsd			C2 D2.
18 2024	R1-1	Nad.	szd1	dsd	70.89	22.58	C2 D2 finished early
18 2328	R1-1	cal script			70.92	21.92	end.
182443	R	CalScript		dsd	70.76	22.74	STS
182545	R2	400/1	Nad	dsd	70.92	22.43	
18 2408	R2	CalScript		dsd	70.89	22.87	CropCal finished early - sorry
18 3012	R2	400/1	Nad	dsd			093040 in Nad+90 sorry again. Dyer Hen
18 3304	R2	& Rad Script		dsd			
183428	Reposition	CalScript		dsd			
183555	Reposition	400/1	Zen	open	706	22.38	
183920	Reposition	CalScript		dsd	71.06	22.56	
184522	In turn	CalScript		dsd	71.15	22.50	
184659	R3 360°	520/1	Nad	dsd	71.11	22.43	
19 5023	In turn	Cal script		dsd	71.05	22.38	
185201	R4	400/1	Nad	dsd	71.08	22.38	
19 5523	Rad Script			dsd	70.98	22.43	
185649	R4	400/1	Nad	dsd	7023	22.46	
190000	Cal Script			dsd	7119	22.54	Recompiled bug between temps.
190217	Cal Script			dsd			
190335	Repos	400/1	Zen	open	71.15	22.11	
190704	Cal	Script		dsd	71.17	22.5	
19 1139	Cal	Script		dsd	7114	2199	In turn @ Nad start.
191402	R5	400/1	Nad	dsd	71.23	22.87	
191725	R5	Cal scrip		dsd	7095	22.38	
191934		" "		dsd	70.83	22.44	

ARIES flight log

Flight: B346 | page 2 of

Date: 19/02/08 | Operator(s): Doss | Res: 1 | Gain A: 2 B: 2

Loc./Notes: CLPX-II

Scans: *either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]".* ***View:*** *mirror angle.*

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
192051	R5	~~Zen~~	~~open~~	open	70.9	22.21	240/1
192300	R6	Nce)	~~dsd~~	dsd	70.90	22.81	240/1
192500	R6	240/1	Nce	dsd	71.3	22.26	240/1
192710	endR6	CalScript		dsd	70.87	22.38	
192918	Repos	CalScript		dsd	71.09	22.42	
193038	Repos.	Zen	400/1	open	70.85	22.41	
193403	Repos	CalScript		dsd	7091	22.03.	
193520	Repos	NoiseScript		dsd	71.07	22.26	HSB noise test
194012	RTstart	CalScript		dsd	71.14	22.2	
194139	R7	520/1	Nce	dsd	70.76	22.47	
194453	endR7	CalScript		dsd	70.90	22.50	
194709	R8.	400/1	Nce	dsd	70.3	22.1	2200'
195043	R8	CalScript			70.62	22.38	
195245	R8	400/1	Nce	dsd	76.04	22.92	
195447	endR8	CalScript			71.01	22.72	
195643	Repos.	CalScript	Nce	dsd	71.04	22.30	
195800	Repos	Zen	open	-	70.74	22.53	400/1
200143	Repos.	1/120	HSB	open	70.66	22.39	} For Brightness cal.
200253	Repos	1/120	OSB	open	7046	22.17	}
200722	Repos	CalScript.	dsd		71.05	2229	
200849	R9	520/1	Nce	dsd	71.54	22.33	20 1150 ended Run
201139	endR9	CalScript		dsd	70.88	2319	
201435	R10	400/1	Nce	dsd	70.82	2266	
201758	R10	CalScript		dsd	70.76	22.43	
201930	R10	400/1	Nce	dsd	71.2	22.42	
202220	endR10	CalScript		dsd	70.96	22.44	
202532		CalScript		dsd	71.06	22.52	
210552	R11	~~400~~/1	Nce	dsd	71.01	22.39	dropsonde run FL350
210913	R11	CalScript			70.62	22.43	
211032	R11	400/1	Nce	dsd	70.73	22.92	FL350
211200	endR11	CalScript		dsd	70.74	22.22	

ARIES flight log

Flight: RB346 | page 3 of 3

Date: 14/4/08 | Operator(s): JOSS | Res: 1 | Gain A: 2 B: 2

Loc./Notes: CLPX-II North Slope Alaska

Scans: *either "[IGMs]X[co-adds]", or "[stop DRS time]" if in start/stop, or "[macro name]".* ***View:*** *mirror angle.*

DRS time	Flt ptrn	Scans	View	Shtr	HBB	CBB	Comments
21 1349	R11-2	400/1	Nad	Cld	70.74	22.5	Single Sonde drop.
21 1667	R11-2	CAESCRIPT	Cld		70.56	22.03	
21 2050		CalScript	Cld		70.80	22.03	
21 2245		CalScript	Cld		70.91	22.34	
21 2549	R11-3	"	"	"	71.20	23.22	
21 2704	R11-3	400/1	Nad	Cld	70.79	21.15	
21 2945	R11-3	CalScript			70.63	21.91	
1230		Stopped recording.					

Microwave Radiometers FLIGHT LOG	Date	19/02/08	Flight	B346	log pages	2

Operator(s)	Pollard	Campaign	CLPX-II
Departure	Fairbanks	Arrival	Fairbanks

System start

MARSS

Visual pod inspection						X
Close 3 SSP circuit breakers						X
Close all MARSS circuit breakers						X
FERA on				at time	15:15	
Temperature controller initial temps	Ch16	19.1	Ch 17	19.2	Ch18	18.3
Temperature controller set points		50°C		50°C	-20	40°C
MARSS CPU on				at time	15:18	
Initial target temperatures	Hot	291.4		Cold	291.5	
Target heating						X
*** CHECK SCAN HEAD CLEAR ***						X
Scanning on (LMD box)				at time	15:19	
Scan indication		Monitor	X		Visual	X

Deimos

Close all Deimos circuit breakers						X
Turn on Deimos CPU						X
*** CHECK SCAN HEAD CLEAR ***						X
Start Deimos Software				at time	15:08	
Initial target temperatures	Hot	291.8		Cold	292.0	
Target heating						X
Scan indication		Monitor	X		Visual	X
Weather	Cloud			Precip		
	Surface			Pressure		
	Other					

System functionality check

(after initial system warmup, approx 1 hour)

PC to DRS Time error		$t_{PC}=t_{DRS}$ +	N/A	at time	N/A	
Brightness temps 'sensible'						
Target temps	MARSS:	Hot	344.5	Cold	294.6	
	Deimos:	Hot	345	Cold	302.9	

Channel gains 'sensible'	Ch1 A (-)	Ch3 A (-)	Ch1 B (-)	Ch3 B (-)	
	58.14	19.38	58.27	18.31	
	Ch16 (40-44)	Ch17 (45-49)	Ch18 (40-44)	Ch19 (40-44)	Ch20 (44-48)
	40.67	35.08	37.48	42.57	42.46

Power changeover

Headset on before start		
Listen to engine start sequence	4, 3, 2, 1.	
LMD off (3 switches, bottom to top)		
Exit Deimos Software (x)		
POWER CHANGEOVER		
LMD on (3 switches, top to bottom)	then pushbutton	
Restart Deimos Software		
System running again	at time	

Flight #	B346	Date	19/02/08	Operator(s)	Pollard	log page	2	of	2

Time	**Run id**	**Alt/FL**	*Remarks*	**Sys**
18:11			Clocks reset, Marss 2.5s fast	
18:33			MARSS clock reset	
19:07			MARSS clock reset was 1s fast	
19:38			MARSS clock reset was 1s fast	
20:05			MARSS clock reset was 1s fast	
21:05			MARSS clock reset was 2s fast	
21:40			MARSS 1 s fast, not bothered wit reset.	
21:43			Deimos still punctual	
22:00			Radiometers off	

CVI log

2/19/08	4:12:52 PM	B346 CLPX-II
2/19/08	4:13:25 PM	Lymann Hygro zeroed
2/19/08	4:17:26 PM	Temperature on tip heater good (35), temp on sample flow F1 and F2 reading above setpoint? (35.5 for F2 and 53.7 for F1)
2/19/08	5:50:18 PM	Temp Flow and Liquide LEDs all out on CPC
2/19/08	5:52:07 PM	PCASP apears to be ok
2/19/08	5:52:59 PM	Lyman Hygro working ok, but signals less than zero.
2/19/08	6:11:41 PM	Turn diluent on Lymann hygro down to 0
2/19/08	6:17:29 PM	Flow LED back on on CPC during profile decent
2/19/08	6:19:44 PM	start of run 1.1
2/19/08	6:22:51 PM	Windows time adjusted to GPS time
2/19/08	8:54:51 PM	Flow LED gone out on profile climb to 530
2/19/08	8:55:15 PM	Flow LED gone out on CPC on profile climb to 530
2/19/08	9:06:49 PM	Sorry, that should have been 350!
2/19/08	9:41:08 PM	Zeroing Lymann Hygrometer
2/19/08	10:11:03 PM	Lymann Hygrometer diluent increase to 0.1

Flight: B346

KEY

- Not Fitted
- Fitted, Not Operated
- Duff Data
- Minor Problems
- OK

Thermometers
- Cabin Temperature:
- Heimann:
- Deiced Temp:
- Non-deiced Temp:

Hygrometers
- FWVS:
- General Eastern:
- Johnson Williams:
- Nevzorov:
- Total Water Probe:

Cameras
- Downward Facing:
- Forward Facing:
- Rearward Facing:
- Upward Facing:

Navigation + Aircraft
- Cruciform GPS:
- GIN Applanix:
- INU Honeywell:
- Radar Altimeter:
- RVSM IAS:
- RVSM Static Pressure:
- XR5 GPS:

Report Created 12/03/2008 15:06:58

Misc Core
- AMTG:
- AVAPS:
- Cabin Pressure:
- Fax machine:
- Printer:
- S9 Static Pressure:
- Satcom C:
- Satcom H:
- Turb Centre-Static:
- Turb Left Right:
- Turb Up-Down:
- Turb Horizontal Chk:
- Turb Vertical Chk:
- Weather Radar:

DLUs:
- DLU AERACK:
- DLU BBR Lower:
- DLU BBR Upper:
- DLU Core Chem:
- DLU Core Consoles:
- DLU Port Aft:
- DLU Port Fwd:
- DLU Stbd Fwd:

Radiometers
Lower:
- BBR (clear) Lower:
- BBR (IR) Lower:
- BBR (red) Lower:

Upper:
- BBR (clear) Upper:
- BBR (IR) Upper:
- BBR (red) Upper:

- ARIES:
- DEIMOS:
- IR Camera:
- JNO2 Lower:
- JNO2 Upper:
- JO1D Lower:
- JO1D Upper:
- MARSS:
- SHIMS Lower:
- SHIMS Upper:
- SWS:
- TAFTS:

Last Updated:

20/02/2008 20:26:20

Cloud Probes
- 2DC:
- 2DP:
- FFSSP:
- PCASP:
- 2DS:
- ADA:
- CAPS:
- CCN:
- CDP:
- CIP 100:
- CIP 25:
- CPI:
- CVI:
- SID1:
- SID2:

Aerosol
- CPC 3025A:
- Filters 47mm:
- Filters 90mm:
- Neph - Dry:
- Neph - Wet:
- PSAP:
- AMS:
- CPC 3025 (AMS)
- INC:
- VACC:
- CPC 3010A (CVI):

Chemistry
- CO Aerolaser 5002:
- NOx TE42C:
- Ozone TE49C:
- Ozone TE49:
- SO2 TE43C:
- TDLAS (NIR) CH4:
- TDLAS (NIR) CO2:

- FAGE:
- Formaldehyde:
- NOx FAAM:
- NOxy:
- ORAC:
- PAN:
- PERCA:
- Peroxide:
- PTRMS:
- TDLAS (1C):
- WAS Bags:
- WAS Bottles:

Misc Non-Core
- CASI/ATM:
- LIDAR:
- LTI:
- SAW Hygrometer:

Faults / Incidents Log

Flight No. B346
Date: 19 February 2008

Instruments

1. IIU – T4 messages counting up on pre-flight. Reset IIU CB then okay.
2. HORACE – Option to Align INU to GPS posn presents XR5M Longitude as ********. Too big a number for the settings?
3. Video – Can't select individual cameras at Aft Core Console
4. DEIMOS – Channel 50GHz noise towards end
5. SWS – Sensitivity may be a bit low, will do calibration check tomorrow
6. Cloud Physics – 2DC slightly noisy at high level. 2DP switched off above Fl250 as noisy.
7.

TWC Zero level = 2046 DRSU

Aircraft

ISDN Emails
Nil connections

Satcom-H Calls
OBR x 1 to Richard at Ground Site.

Issues
Cabin very warm at start (to keep galley & toilet water from freezing). Got to 28C at ARIES Rack. down.

Post Flight - Turb Probe Water Traps

1. Indicate Amount of Water: a) Nil b) 1-2 drops c) ¼ full or more d) Ice present
2. Emptied by:
3. Dried by:

Pre-Flighter's Log

^ Clipboard power button

Date: 19/2/08 Flight No: B 346 Pre-Flighter: AMW

No.	√ or x	Location	Action	Comments
1	—	Hangar	Collect Dustbin, put on a/c	
		Aircraft Cabin: Power-up		
2	✓	Core Chemistry	Gases x 3 ON	ARCH
3	✓	Cabin	All Racks Checked	
4	✓	Fwd CorCon	All reqd CBs made	
5	✓	Aft CorCon	CBs made, PCs ON	
6	✓	HORACE	Optical Disk loaded	
7	✓	HORACE	Recording data	
8	✓	HORACE	DLU Status Checked	
9	✓	HORACE	HORACE Status Checked	
10	✓	Satcom H	Power LED ON	
11	✓	Nevzorov	Checked and OFF	
12	—	GPS	Checked	IN HANGAR - NO SATS
13	✓	INU	Align	
14	✓	Cameras Pictures	Checked x 4 OK	
15	✓	Core Chemistry	Instruments Checked OK	DOUG
16	✓	Core Chemistry	CO Flows Checked OK	DOUG
17	✓	FWVS	Set up & on **AUTO**	JOSS
18	✓	Video x 2	Records okay, Rewind	
19	✓	Delced Rosemount	Heater Checked / Set	
20	✓	Heimann	Calibration Checked	
21	✓	TWC	ON & Checked	
22	✓	GE	Balance checked	
23		INU	Navigate then back to Align	
24				
25	✓	Fwd Console	Miss. Sci Laptop CB made	
26	✓	CNC	Butanol filled	
27	✓	Dry Neph	Power up & Zero Cal	

No.	√ or x	Location	Action	Comments
28	—	CGPS	Set up	
29	✓	Miss. Sci Laptop	Checked Onboard	
		External Checks		
30	✓	Turb Probe	Clean if reqd, Photo taken	
31	✓	JW	Cleaned & Checked	
32	✓	DI Rosemount	Cleaned & Checked	
33	✓	NDI Rosemount	Cleaned & Checked	
34	✓	Nevzorov	Cleaned/windings checked	
35	✓	GE	Cleaned & Checked	
36	✓	Lower BBRs	Domes cleaned/checked	
37	✓	Camera Windows	Cleaned	
38	✓	Heimann	Lens checked OK	
39	x	TWC Cover	Fitted if required	N/R
40	✓	All other covers	Removed	
41		Dustbin	Returned to hangar	
42		Pre-flight Bag	Returned to hold	** Check no butanol**
43		Tools	Check ALL in Toolkit	
44		Tools	Avalon informed	

	Avalon Checks	Signed
	Upper BBRs Checked & Cleaned	
	ICEX applied	
	Turb Probe - Traps emptied, detail contents -	a)Nil b)1-2 drops c)1/4 full or more
	Turb Probe - Traps dried and resealed	

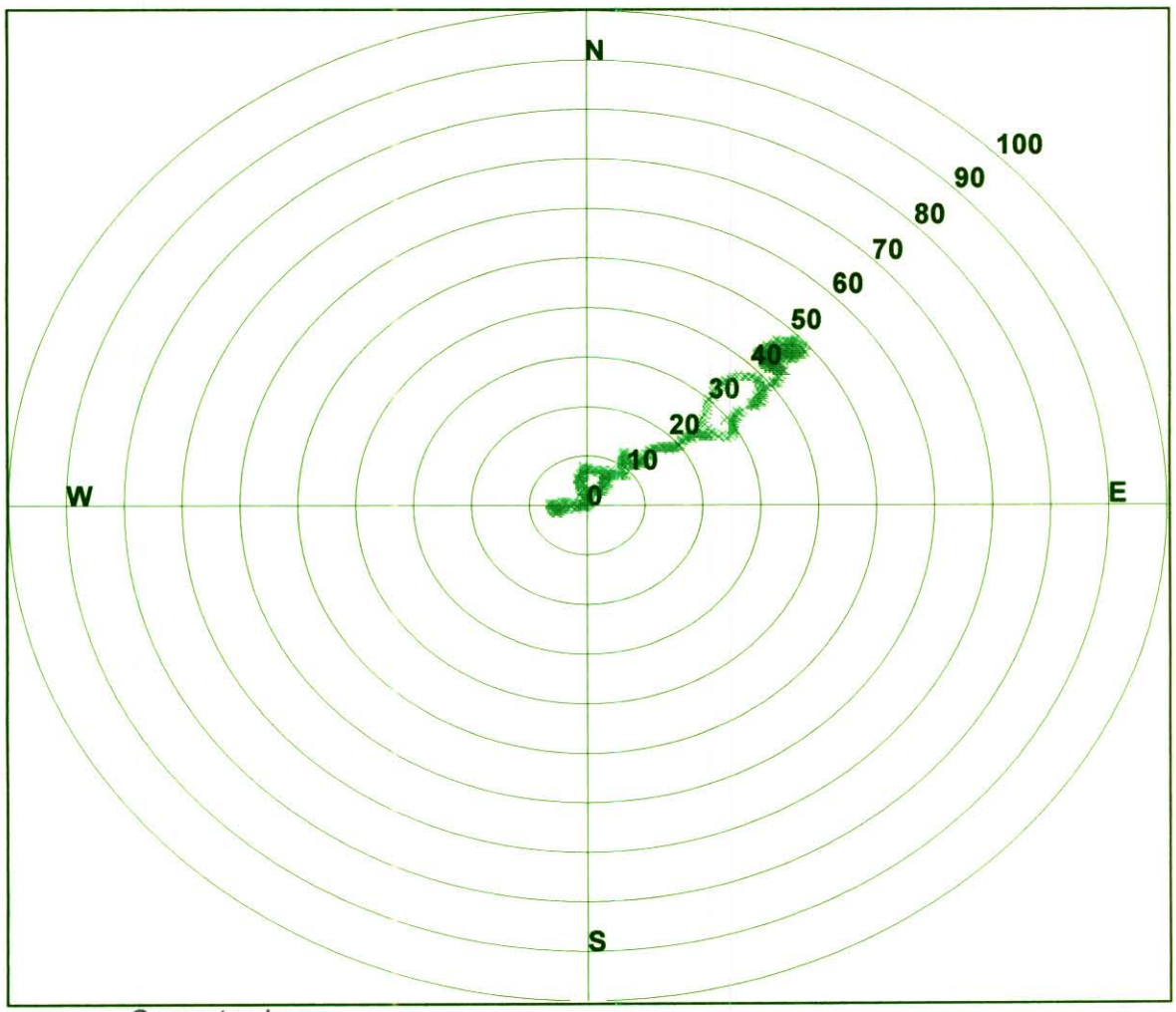
Flight B346 21:09:28

Heading 189 deg Speed 372 knots Height 35.0kft Press 238mb

Lat 68°54.0'NLong 148°54.0'W Wind 48 ms-1/ 230 deg

Temp -58.1C Dewpoint -65.54C

From 20:17:58 to now



Current values		
INS WIND ANGLE	230.85	deg
INS WIND SPEED	48.52	m s-1

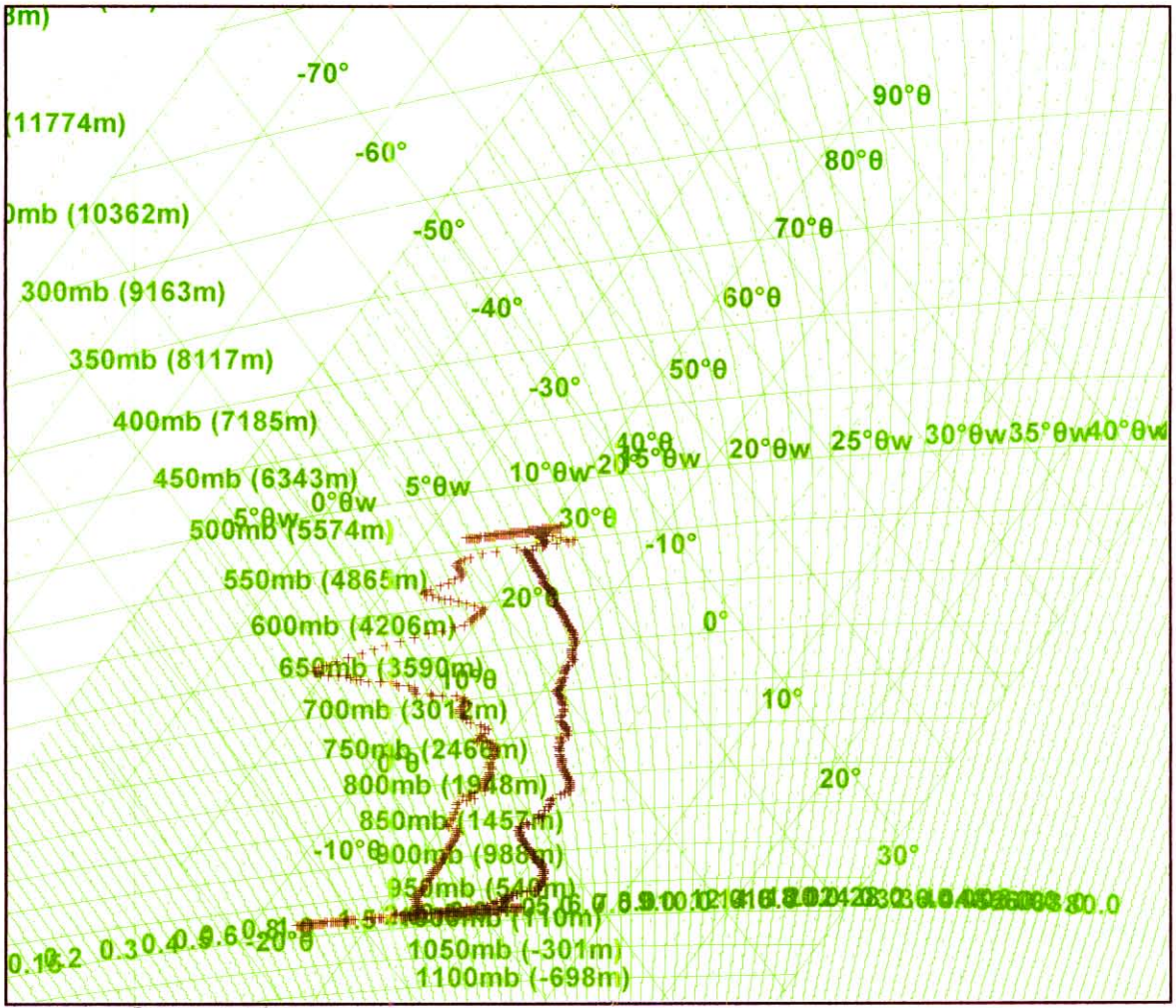
Flight B346 17:48:41

Heading 355 deg Speed 289 knots Height 16.4kft Press 539mb

Lat 66°30.0'NLong 148°18.0'W Wind 15 ms-1/ 171 deg

Temp -22.4C Dewpoint -22.1C

From 17:07:00 to now



	Current values		
	STATIC PRESSURE	539.38	mb
++++	DEICED TRUE AIR TEMP	-22.41	deg C
++++	DEW POINT	-22.1	deg C

MISSING LOG SHEETS:

The following log sheets are not available for flight B346:

Log	Reason
Core Chemistry	no In Flight log except in cases of instrument problems
PSAP log	No log as any PSAP pump/filter info included on Flight Summary page

Document control

Revision	Date	Author	Comments
r0	01 Apr 2008	Doug Anderson	Initial version missing the above noted logs
r1			
r2			

VIDEO RECORDINGS:

3 x for/Upward Facing Cameras
3 x Downward Facing Cameras

Digital8 video recordings from this flight reside with :

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